



IOWA DEPARTMENT OF NATURAL RESOURCES

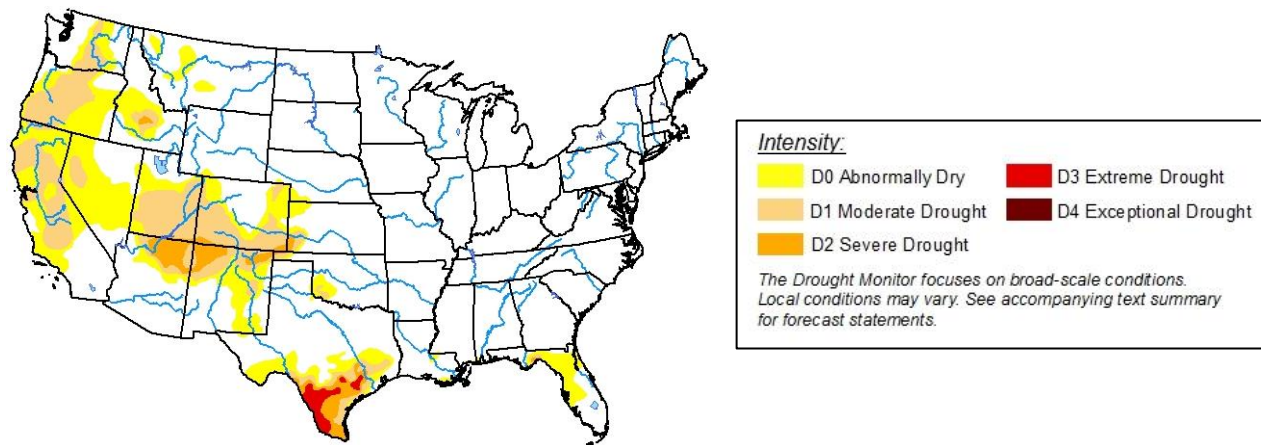
WATER SUMMARY UPDATE

Published Date March 5, 2020 | Issue 105

A snapshot of water resource trends for the month of February 2020

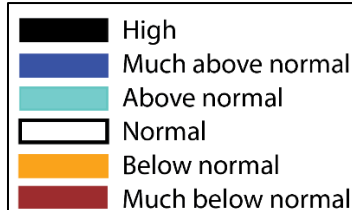
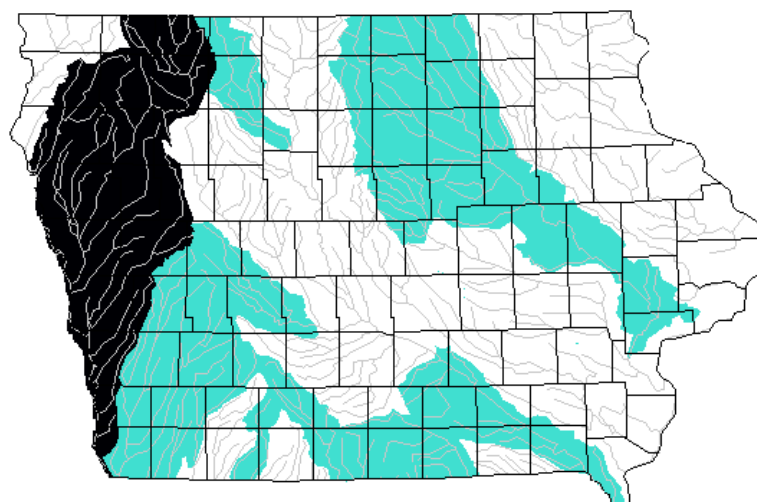
Drought Monitor - Conditions as of March 3, 2020

National Drought Mitigation Center and partners



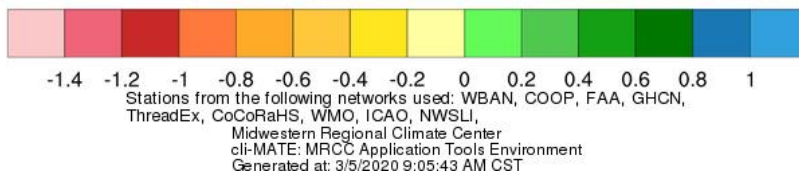
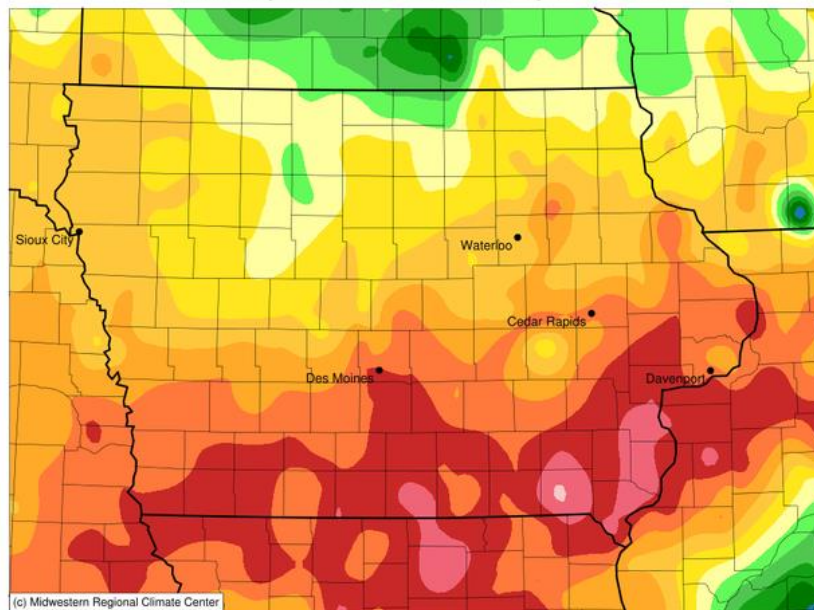
Stream Flow – February 2020

February 2020



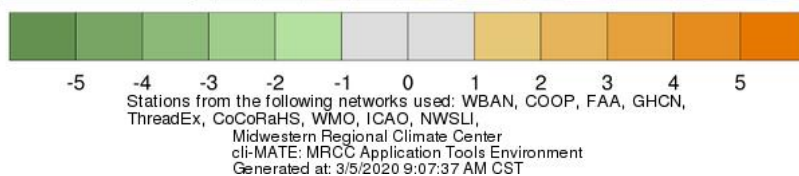
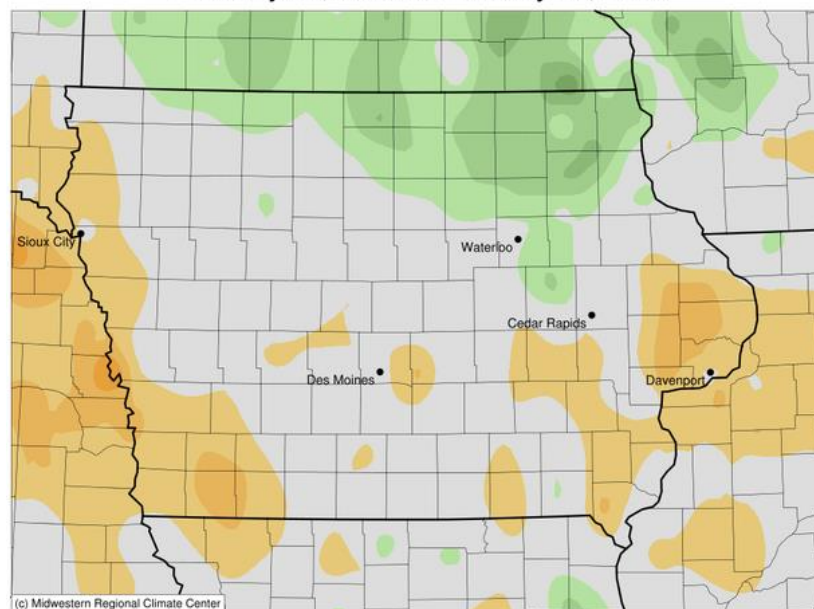
Accumulated Precipitation (in): Departure from 1981-2010 Normals

February 01, 2020 to February 29, 2020



Average Temperature (°F): Departure from 1981-2010 Normals

February 01, 2020 to February 29, 2020



RECENT DEVELOPMENTS AND CHANGES

SUMMARY

February 2020 was drier than normal, with about normal temperatures. The winter months of December, January, and February had total precipitation of about 3 inches, which is 0.33 inches less than normal. Stream levels have improved across much of the state, with levels dropping into the normal range across the central and eastern areas of Iowa. Drier conditions over the winter have improved conditions across the State, however the risk for flooding on the Missouri and Mississippi Rivers remains elevated for this coming spring.

DROUGHT MONITOR

Iowa remains drought and dryness free. Nearly all of the United States east of the Mississippi River remains free from any drought or dryness, except for parts of Florida. In the western states, some areas of D3 – Extreme Drought are present in southern Texas, and D2 – Severe Drought persists in the four corners area of New Mexico, as well as in southeastern Colorado. These conditions reflect the overall wetness that exists over much of the country.

CURRENT STREAM FLOW

Streamflow conditions in the majority of the state have decreased over the last month. Flows that were much above normal condition have dropped to normal condition. There are a few areas where flows remain high, including the Little Sioux, Boyer, Floyd and Missouri Rivers’

JANUARY PRECIPITATION AND TEMPERATURE

Preliminary statewide average precipitation totaled 0.43 inches or 0.62 inches below normal. Almost all of the reporting stations across Iowa observed below average precipitation with the driest areas across the southern quarter of Iowa. February precipitation totals ranged from 0.10” in Hawarden (Sioux County) and Oakland (Pottawattamie County) to 1.14” at Dubuque Regional Airport (Dubuque County). Most of the precipitation in February fell in the first half of the month, with the second half of the month of February being quite dry.

Much of Iowa experienced below normal snowfall with the preliminary average statewide total of 3.3 inches, or about half the average February snowfall. Only sections of the northernmost two tiers of counties reported above average totals. Osage (Mitchell County) reported the highest total of 12.6 inches, double its normal February average. Multiple stations in southwest Iowa reported only a trace of snow during the month.

Preliminary statewide temperatures in February were 24.3 degrees, only 0.3 degree above normal. Western Iowa and parts of southeast Iowa experienced the warmest conditions, where average temperatures were one to two degrees above normal. Colder than normal conditions were experienced along the Iowa-Minnesota border though the average temperatures there were only a few degrees below the 30-year average. The warmest daytime high of 64 degrees was reported in on the 23rd at multiple stations in southern Iowa; this reading was on average 24 degrees above normal. Cresco (Howard County) reported the coldest overnight low of -28 degrees on the morning of the 20th. This reading was 38 degrees below average. Precipitation totaled 2.98 inches, 0.33 inches less than normal. This ranks as the 61st driest winter among 148 years of records.

WINTER SUMMARY

The winter of 2020 was warmer and drier than normal. Iowa temperatures for the three winter months of December, January and February averaged 25.5 degrees or 3.4 degrees above normal while precipitation totaled 2.98 inches, 0.33 inches less than normal. This ranks as the 61st driest winter among 148 years of records. The state averaged 16.9 inches of snowfall, which ranks the 2019-2020 winter in the bottom third for snowfall in the 133 years of records.

SHALLOW GROUNDWATER

Groundwater levels are largely unchanged from January to February. While eastern Iowa shows the driest conditions in the state, water levels there remain in the normal range.

SPRING 2020 FLOOD OUTLOOKS

The National Weather Service issued Spring Flood Outlooks on February 13 and 27. Both of these outlooks indicated elevated potential for flooding along the Mississippi and Missouri Rivers.

River	Spring Flood Risk
Mississippi River	Much Above Normal
Missouri River above Platte River	Above Normal
Missouri River below Platte River	Much Above Normal
Tributaries to Mississippi River in Iowa	Above Normal (Variable in northeast Iowa)
Big Sioux River	Much Above Normal
Other Tributaries to Missouri River in Iowa	Above Normal



Iowa Homeland Security and Emergency Management and other relevant state agencies continue to watch conditions across the state as the traditional spring flooding season progresses.

MISSOURI RIVER BASIN

The National Weather Service's Missouri River Forecast Center indicated in their February 26 Spring Flood Outlook that for the State of Iowa, the Floyd and Rock Rivers, and West Fork Ditch are likely to see minor flooding. The Ocheyedan River is expected to have moderate flooding. The Little Sioux and Big Sioux Rivers are projected to experience major flooding this year. 2019 was the 3rd wettest year for the basin on record, outmatched only by 1993 and 1915. As a result, the majority of the Missouri River basin has wetter-than-normal soils. Runoff in 2020 is expected to be more than 140% of normal, and in the top ten for runoff years in the basin.

ADDITIONAL INFORMATION

For additional information on the information in this Water Summary Update please contact any of the following:

General Information Tim.Hall@dnr.iowa.gov 515-725-8298
Drought Monitor and Precipitation. Justin.Glisan@iowaagriculture.gov 515-281-8981
Stream Flow. Daniel Christiansen, dechrist@usgs.gov 319-358-3639
Stream Flow. Michael.Anderson@dnr.iowa.gov 515-725-0336
Shallow Groundwater. mike-gannon@uiowa.edu 515-725-0336